AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An apparatus for manufacturing ultra-fine particles using corona discharge, comprising:

~~a reaction gas supplying~~ means for supplying reaction gas;

at least one nozzle connected to the ~~reaction gas supplying~~ means for supplying reaction gas, configured for injecting ~~the~~ reaction gas flowing therein, and configured for producing a ~~large~~ number of ultra-fine particles by corona discharge of ~~the~~ injected reaction gas;

~~a power supplying~~ means ~~connected to the nozzle~~ for applying a voltage to the at least one nozzle and configured for causing ~~the~~ corona discharge ~~thereto~~ at the at least one nozzle; and

~~a collecting~~ means ~~spaced from the nozzle and~~ for collecting ~~the~~ ultra-fine particles produced by ~~the~~ corona discharge ~~of the nozzle~~.

2. (Currently amended) The apparatus as claimed in claim 1, further comprising a duct enclosing the at least one nozzle ~~to cause~~ and configured for forming a passage ~~to be formed~~ between the at least one nozzle and the duct, and ~~a sheath gas supplying~~ means for supplying sheath gas to the passage of the duct in order to form a gas curtain that leads flow of ~~the~~ ultra-fine particles between the at least one nozzle and the ~~collecting~~ means for collecting.

3. (Currently amended) The apparatus as claimed in claim 2, further comprising a first variable resistor configured for dropping a high voltage applied from the ~~power supplying~~ means

for applying a voltage to a low voltage and configured for applying ~~the~~ a low voltage to the duct, and a second variable resistor connected to the first variable resistor and grounded.

4. (Currently amended) The apparatus as claimed in claim 2, wherein a tip of the at least one nozzle extrudes out ~~of~~ the duct, the apparatus further comprising ~~a delivering~~ means for delivering the ~~collecting~~ means for collecting.

5. (Currently amended) An apparatus for manufacturing ultra-fine particles using corona discharge, comprising:

~~a first reaction gas supplying~~ means for supplying a first reaction gas;

at least [[a]] one first nozzle connected to the ~~first reaction gas supplying~~ means for supplying a first reaction gas, configured for injecting the first reaction gas flowing therein, and configured for producing a ~~large~~ number of first ultra-fine particles by corona discharge of ~~the~~ injected first reaction gas;

~~a first power supplying~~ means ~~connected to the first nozzle~~ for applying a first voltage to the at least one first nozzle and configured for causing corona discharge ~~thereto~~ at the at least one first nozzle;

~~a second reaction gas supplying~~ means for supplying a second reaction gas different from the first reaction gas;

at least [[a]] one second nozzle faced to and spaced from the at least one first nozzle, connected to the ~~second reaction gas supplying~~ means for supplying a second reaction gas, configured for injecting the second reaction gas flowing therein, and configured for producing a ~~large~~ number of second ultra-fine particles by corona discharge of ~~the~~ injected second reaction gas; and

~~a second power supplying~~ means ~~connected to the second nozzle~~ for applying a second voltage at the at least one second nozzle and configured for causing corona discharge ~~thereto~~ at

the at least one second nozzle in order for the first ultra-fine particles and the second ultra-fine particles to adhere to each other between the at least one first nozzle and the at least one second nozzle.

6. (Currently amended) An apparatus for manufacturing ultra-fine particles using corona discharge, comprising:

~~a first reaction gas supplying~~ means for supplying a first reaction gas;

at least one nozzle connected to the ~~first reaction gas supplying~~ means for supplying a first reaction gas, configured for injecting the first reaction gas flowing therein, and configured for producing a ~~large~~ number of first ultra-fine particles by corona discharge of ~~the~~ injected first reaction gas;

~~a power supplying~~ means ~~connected to the nozzle~~ for applying a high voltage to the at least one nozzle and configured for causing corona discharge ~~thereto~~ at the at least one nozzle;

a duct enclosing the at least one nozzle ~~to cause~~ and configured for forming a passage ~~to be formed~~ between the at least one nozzle and the duct;

~~a second reaction gas supplying~~ means for supplying the passage of the duct with a second reaction gas different from the first reaction gas;

~~a heating~~ means for heating installed on an outer surface of the duct and configured for providing heat energy to the second reaction gas in order to coat the first ultra-fine particles with a ~~large~~ number of second ultra-fine particles, when the second ultra-fine particles ~~being~~ are obtained by thermochemical reaction of the second reaction gas; and

~~a collecting~~ means for collecting spaced from the duct and configured for collecting the first ultra-fine particles coated with the second ultra-fine particles.

7. (Currently amended) The apparatus as claimed in claim 6, wherein the at least one nozzle is entirely accommodated in the passage of the duct.

8. (Currently amended) An apparatus for manufacturing ultra-fine particles using corona discharge, comprising:

~~a first reaction gas supplying~~ means for supplying a first reaction gas;

at least [[a]] one first nozzle connected to the ~~first reaction gas supplying~~ means for supplying a first reaction gas, configured for injecting the first reaction gas flowing therein, and configured for producing a ~~large~~ number of first ultra-fine particles by corona discharge of ~~the~~ injected first reaction gas;

~~a first power supplying~~ means ~~connected to the first nozzle~~ for applying a first high voltage to the at least one first nozzle and configured for causing corona discharge ~~thereto~~ at the at least one first nozzle;

a first duct enclosing the at least one first nozzle ~~to cause~~ and configured for forming a passage ~~to be formed~~ between the at least one first nozzle and the first duct;

~~a second reaction gas supplying~~ means for supplying the passage of the first duct with a second reaction gas different from the first reaction gas;

at least [[a]] one second nozzle installed at a distal end of the first duct, configured for injecting the first ultra-fine particles and the second reaction gas flowing therein, configured for producing a ~~large~~ number of second ultra-fine particles by corona discharge of ~~the~~ injected second reaction gas, and configured for coating the first ultra-fine particles with the second ultra-fine particles;

~~a second power supplying~~ means ~~connected to the second nozzle~~ for applying a second high voltage to the at least one second nozzle and configured for causing corona discharge ~~thereto~~ at the at least one second nozzle; and

~~a collecting~~ means for collecting spaced from the at least one second nozzle and configured for collecting the first ultra-fine particles coated with the second ultra-fine particles.

9. (Currently amended) The apparatus as claimed in claim 8, further comprising a second duct enclosing the first duct and the at least one second nozzle ~~to cause~~ configured for forming a passage ~~to be formed~~ between the first duct and the second duct and between the at least one second nozzle and the second duct, and ~~a sheath gas supplying~~ means for supplying sheath gas to the passage of the second duct ~~to form~~ configured for forming a gas curtain that leads flow of the first ultra-fine particles coated with the second ultra-fine particles between the at least one second nozzle and the ~~collecting~~ means for collecting.

10. (Currently amended) The apparatus as claimed in claim 9, further comprising a first variable resistor configured for dropping the first high voltage applied from the ~~first power supplying~~ means for applying a first high voltage to a first low voltage and configured for applying ~~the~~ a first low voltage to the first duct, a second variable resistor connected to the first variable resistor and grounded, a third variable resistor configured for dropping the second high voltage applied from the ~~second power supplying~~ means for applying a second high voltage to a second low voltage and configured for applying ~~the~~ a second low voltage to the second duct, and a fourth variable resistor connected to the third variable resistor and grounded.

11. (Currently amended) The apparatus as claimed in claim 9, wherein a tip of the at least one second nozzle extrudes out ~~of~~ the second duct, the apparatus further comprising a ~~delivering~~ means for delivering the ~~collecting~~ means for collecting.

12. (Currently amended) A method for manufacturing ultra-fine particles using corona discharge, comprising steps of:

generating corona discharge by ~~allowing a power supplying means to apply~~ applying a ~~high~~ voltage to a nozzle;

supplying reaction gas to the nozzle ~~by a reaction gas supplying means~~;

producing a ~~large~~ number of ultra-fine particles by injecting the reaction gas into a corona discharge region of the nozzle; and

collecting the ultra-fine particles ~~by a collecting means~~, the ultra-fine particles passing through the corona discharge region of the nozzle.

13. (Currently amended) The method as claimed in claim 12, wherein the ~~high~~ voltage is applied in the form of a pulse.

14. (Currently amended) The method as claimed in claim 12, further comprising the step of forming a gas curtain of sheath gas in order to lead flow of the ultra-fine particles between the nozzle and the location of collecting ~~means~~.

15. (Currently amended) The method as claimed in claim 12, further comprising the steps of supplying ~~other~~ a second reaction gas different from the reaction gas to the surroundings of the ultra-fine particles flowing from the nozzle to the location of collecting ~~means~~, producing a ~~large~~ number of ~~other~~ second ultrafine particles by allowing the ~~other~~ second reaction gas to react thermochemically by providing the ~~other~~ second reaction gas with heat energy, and coating the ultra-fine particles with the ~~other~~ second ultra-fine particles.

16. (Currently amended) A method for manufacturing ultra-fine particles using corona discharge, comprising steps of:

generating corona discharge by ~~allowing a first power supplying means to apply~~ applying a first ~~high~~ voltage to a first nozzle;

generating corona discharge by ~~allowing a second power supplying means to apply~~ applying a second ~~high~~ voltage to a second nozzle positioned downstream of the first nozzle;

injecting a first reaction gas into a corona discharge region of the first nozzle ~~by allowing a first reaction gas supplying means to supply the first reaction gas to the first nozzle~~;

producing a ~~large~~ number of first ultra-fine particles by injecting the first reaction gas into a corona discharge region of the first nozzle;

mixing the first ultra-fine particles and second reaction gas and supplying them to the second nozzle ~~by a second reaction gas supplying means~~;

injecting a mixed gas of the ultra-fine particles and the second reaction gas into a corona discharge region of the second nozzle and coating the first ultra-fine particles with a ~~large~~ number of second ultra-fine particles produced from the second reaction gas; and

collecting the first ultra-fine particles coated with the second ultra-fine particles ~~by a collecting means~~.

17. (Currently amended) The method as claimed in claim 16, further comprising the step of forming a gas curtain of sheath gas in order to lead flow of the ultra-fine particles between the second nozzle and the location of collecting ~~means~~.

18. (Currently amended) The method as claimed in claim 16, wherein the first and second ~~high~~ voltages are applied in the form of a pulse.